WHAT IS CLAIMED IS:

1. A common buffer memory control apparatus controlling a common buffer memory which is used to store message data items each of which is divided into a plurality of cells based on an asynchronous transfer mode, said apparatus comprising:

first management means for managing whether each of blocks into which said common buffer memory divided is free or used;

block selecting means for selecting a block of said common buffer memory which is free based on information obtained by said first management means; and

cell writing control means for controlling a write operation for a single message data item so that the respective cells of the single message data item are written in the block, selected by said block selecting means, of said common buffer memory.

2. The common buffer memory control apparatus as claimed in claim 1, wherein said first management means comprises:

a free block management table having areas each of which corresponds to one of the blocks of said common buffer memory, each of the areas of said free block management table storing information indicating whether a corresponding one of the blocks of said common buffer memory is free or used,

wherein said block selecting means selects, with

reference to said free block management table, the block which is free.

3. The common buffer memory control apparatus as claimed in claim 2, wherein said block selecting means comprises:

free block searching means for searching said free block management table for an area storing the information indicating that a corresponding block is free, wherein the block corresponding to the area obtained by said free block searching means is selected.

4. The common buffer memory control apparatus as claimed in claim 1, wherein said cell writing control means comprises:

second management means for managing addresses in each of the blocks of said common buffer memory; and

address specifying means for specifying, based on information obtained by said second management means, an address in the block selected by said block selecting means every time one of cells of the single message data item is received, so that the cells of the single message data item are written at addresses specified by said address specifying means.

5. The common buffer memory control apparatus as claimed in claim 4, wherein second management means comprises:

a table having areas each of which corresponds to one of the blocks of said common buffer memory, each of the areas storing an address at which the next cell should be written, the address in each of the areas of said table being updated every time a cell is written in a corresponding block of said common buffer memory.

6. The common buffer memory control apparatus as claimed in claim 1, wherein a number of blocks of said common buffer memory and a length of each of the blocks are set at values corresponding to data supplied from an external input device.

7. The common buffer memory control apparatus as claimed in claim 1, wherein a length of each of the blocks of said common buffer memory is controlled based on information about an amount of information of the message data extracted from a cell.

8. The common buffer memory control apparatus as claimed in claim 7, wherein, if the amount of information of the message data actually written in the block is less than the controlled

length of the block, a remaining area of the block is opened so as to be used in following message communication.

9. The common buffer memory control apparatus as claimed in claim 1 further comprising:

user management means for managing the blocks of said common buffer memory so that a block storing a head cell positioned at a head of the message data corresponds to user identification information extracted from the head cell, wherein said cell writing control means controls, based on information obtained by said user management means, the write operation so that each of cells positioned in a mid-portion of the message data is written in the block corresponding to user identification information extracted from said each of the cells.

10. The common buffer memory control apparatus as claimed in claim 9, wherein said user management means comprises:

a user management table having areas each of which corresponds to one of the blocks of said common buffer, each of the areas storing the user identification information extracted from the head cell which has been written in a corresponding block of said common buffer memory, wherein said cell writing control means controls the write operation with reference to said user management table.

11. The common buffer memory control apparatus as claimed in claim 1, wherein said block selecting means selects a block of said common buffer memory which is free in advance of receiving a head cell positioned at a head of the message data.